



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,497	05/23/2006	Josi Rosenfeld	GB 030214	2311

24737 7590 11/29/2007
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

HSIEH, PING Y

ART UNIT	PAPER NUMBER
----------	--------------

2618

MAIL DATE	DELIVERY MODE
-----------	---------------

11/29/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/580,497

Applicant(s)

ROSENFELD, JOSI

Examiner

Ping Y. Hsieh

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 8-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 20-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 8-19 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 8-19 have not been further treated on the merits.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 7, 20-22 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Goren et al. (U.S. PATENT NO. 7,069,025).

-Regarding claim 1, Goren et al. disclose a positioning method for a radio system **(as disclosed in Fig. 15 and 16)**, the method comprising: receiving signals at a unit of the system **(receive data signal as disclosed in step 1510, Fig. 15 and further disclosed in col. 22 lines 9 – 11)**; applying at least one test on the received signals to select a processing operation on the signals **(evaluate correlation function using buffered data signal as disclosed in step 1570, Fig. 165 and further disclosed in col. 22 lines 22 – 30)**, the operation being

one of the following: a correlation processing operation (**as disclosed in step 1575, Fig. 15 and further disclosed in col. 22 lines 31 - 35**), a leading edge processing operation (**as disclosed in step 1585, Fig. 15 and further disclosed in col. 22 lines 36 – 40**); and then effecting the operation selected (**see Fig. 15 steps 1570 - 1590**).

-Regarding claim 2, Goren et al. further disclose the test applied comprises determining whether the signal level of the received signal is above a threshold value (**determining whether the correlation function quality sufficient is above a threshold value as disclosed in step 1575, Fig. 15; if yes, estimate TOA as disclosed in step 1580, Fig. 15**).

-Regarding claim 3, Goren et al. further disclose if the level of the received signal is below the threshold value, the correlation processing operation is selected (**if the correlation function quality is not sufficient, evaluate correlation function using buffered data signal as disclosed in step 1575 and 1570, Fig. 15**).

-Regarding claims 7 and 26, Goren et al. further disclose repeating the test application and operation steps at predetermined intervals (**It may repeat the test application and operation steps at the intervals of receiving data signals as disclosed in Fig. 15**).

-Regarding claim 20, Goren et al. disclose a positioning apparatus for a radio system (**as disclosed in Fig. 15 and 16 and further disclosed in col. 22 lines 1 – 5**), the apparatus comprising: means to receive signals at a unit of the

system (receiver 110, Fig. 1; receive data signal as disclosed in step 1510, Fig. 15 and further disclosed in col. 22 lines 9 – 11); means to apply at least one test on the received signals to select a processing operation on the signals (TOA estimation device 200, Fig. 2; evaluate correlation function using buffered data signal as disclosed in step 1570, Fig. 165 and further disclosed in col. 22 lines 22 – 30) which is one of the following: a correlation processing operation (as disclosed in step 1575, Fig. 15 and further disclosed in col. 22 lines 31 - 35), a leading edge processing operation (as disclosed in step 1585, Fig. 15 and further disclosed in col. 22 lines 36 – 40); and means to effect the operation selected (see Fig. 15 steps 1570 - 1590).

-Regarding claim 21, Goren et al. further disclose means to determine whether the signal level of the received signal is above a threshold value (determining whether the correlation function quality sufficient is above a threshold value as disclosed in step 1575, Fig. 15; if yes, estimate TOA as disclosed in step 1580, Fig. 15).

-Regarding claim 22, Goren et al. further disclose means to select the correlation processing operation if the level of the received signal is below the threshold value (if the correlation function quality is not sufficient, evaluate correlation function using buffered data signal as disclosed in step 1575 and 1570, Fig. 15).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 4-6 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goren et al. (U.S. PATENT NO. 7,069,025) in view of Diener et al. (U.S. PATENT NO. 7,006,838).

-Regarding claims 4 and 23, Goren et al. teach all the limitation as claimed in claims 1 and 2. However, Goren et al. fail to disclose testing the leading edge gradient is above a threshold.

Diener et al. disclose a signal detector 520 and a pulse detector coupled to the peak detector that detects from the peak information pulses that meet the configured criteria as disclosed in col. 8 lines 41 - 46.

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the method as disclosed by Goren et al. to include

the step of detecting the peak information pulses that meet the configured criteria as disclosed by Diener et al. One is motivated as such in order to provide accuracy for identifying location using leading edge operation.

-Regarding claims 5 and 24, the combination further discloses if the leading edge gradient is below the gradient threshold value, the leading edge processing operation is selected **(Diener et al., knowing the type of the signal to be located after detecting from the peak information pulses that meet the configured criteria, can be useful in deciding on what type of signaling process to use in order to obtain TDOA measurements to locate the source of the signal as disclosed in col. 8 lines 41 - 55; and Goren et al., estimate TOA step 1580 as disclosed in Fig. 15).**

-Regarding claims 6 and 25, the combination further discloses if the leading edge gradient is above the gradient threshold value, the correlation processing operation is selected **(Diener et al., knowing the type of the signal to be located after detecting from the peak information pulses that meet the configured criteria, can be useful in deciding on what type of signaling process to use in order to obtain TDOA measurements to locate the source of the signal as disclosed in col. 8 lines 41 - 55; and Goren et al., correlation function quality sufficient step 1575 as disclosed in Fig. 15).**

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Anderson et al. (U.S. PATENT NO. 6,876,859).

Application/Control Number:
10/580,497
Art Unit: 2618

Page 7

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Y. Hsieh whose telephone number is 571-270-3011. The examiner can normally be reached on Monday-Thursday (alternate Fridays) 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lana Le can be reached on 571-272-7891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PH



11-23-07

LANA LE
PRIMARY EXAMINER